

## **T-20-1 – “Ornate Box Turtle, Crested Caracara, and Burrowing Owl in Southwest Louisiana”**

*Abstract:* The ornate box turtle (*Terrapene ornata*), the crested caracara (*Caracara cheriway*), and the burrowing owl (*Athene cunicularia*) are three species that are considered critically imperiled to imperiled in Louisiana. The focus of this project was to utilize aerial photography and GIS capabilities to estimate patches of longleaf pine savannah and coastal prairie that could support populations of these critically imperiled species in portions of the west central and southwest Louisiana parishes of Acadia, Allen, Beauregard, Calcasieu, Cameron, Jefferson Davis, Rapides, Vermillion, and Vernon parishes.

Out of the nine parishes investigated, seven parishes contained longleaf pine savannah habitat. A total of 151 polygons were identified amounting to 35,078.061 acres. Beauregard parish had the greatest concentration of longleaf pine savannah with 9,196.950 acres contained in 55 patches of land averaging 167.217 acres per polygon. Vernon contained the largest habitat patches averaging 480.696 acres within 16 polygons. Utilizing data from this project, the Louisiana Natural Heritage Program (LNHP) staff can prioritize polygons based on size, relative condition observed from aerial photos, and landscape context. This information will allow LNHP to survey lands as time and landowners permit for longleaf habitats and rare species associated with this natural community.

Five of the nine Louisiana parishes within the study area contained coastal prairie habitat. A total of 231 polygons were identified amounting to 63,742.607 acres. Cameron parish had the largest amount of coastal prairie habitat with 30,816.448 acres contained within 117 polygons averaging 263.338 acres per polygon. Vermillion had the greatest concentration of unfragmented coastal prairie, averaging 595.607 acres within 43 habitat patches. Actual coastal prairie habitat was very difficult to identify simply using aerial photography since it has a signature almost identical to pasture and some agricultural crops. It is likely there is a very high error rate with the resulting data, but it may be utilized to better estimate the original extent of coastal prairie habitat in southwest Louisiana, and to identify possible sites for coastal prairie restoration projects.

The grant was closed on 30 June 2004.

**For more information** about State Wildlife Grant T-20, or to obtain copies of interim or final reports, please contact the State Wildlife Grant Coordinator, LDWF Fur & Refuge Division.